IN THE CLAIMS:

Please cancel claims 1-32 without prejudice.
Claims 33-37 and new claims 38-53 are pending in the application.

Claims 1-32 (Canceled)

33. (Original) A method for loading executable code to volatile memory in at least one processor in at least one downhole tool located in a downhole tool string comprising:
providing a processor reading from boot memory to retrieve an executable code from a surface control unit;
requesting the executable code from the surface control unit over an integrated downhole network;
sending the executable code to the processor over the integrated downhole network; and
temporarily writing the executable code into the random access memory.

34. (Original) The method of claim 33 further comprising the step of directing the executable code sent from the surface control unit to the correct downhole tool by network interface modems associated with nodes in the integrated downhole network.

35. (Original) The method of claim 33 wherein the step of directing the executable code comprises providing a connection from to a local area network.

36. (Original) The method of claim 33 wherein the surface control unit comprises non-volatile memory.

37 (Original) The method of claim 33 wherein the surface control unit comprises volatile memory.

38. (New) A method for loading an executable code to a volatile memory in a downhole tool string component comprising:

sending the executable code from a surface control unit to a processor over an integrated downhole network;

writing by a central processing unit the executable code into the volatile memory, wherein the executable code is volatilely stored in the downhole tool string component, and,

reading by the processor from boot memory to retrieve an executable code from the surface control unit.

39. (New) The method of claim 38 further comprising the step of sending a command to the central processing unit as soon as the processor is in electrical communication with the surface control unit.

40. (New) The method of claim 38 further comprising the step of directing the executable code sent from surface control unit to the downhole tool string component by network interface modems associated with nodes in the integrated downhole network.

41. (New) The system of claim 38 wherein the method further comprises the step of selecting the executable code from the group consisting of software, operating systems, portions of operating systems, calibration constants, data files, and instruction sets.

42. (New) The method of claim 38 wherein the volatile memory comprises random access memory (RAM).

43. (New) The method of claim 38 wherein the surface control unit comprises non-volatile memory.

44. (New) The method of claim 38 wherein the surface control unit comprises volatile memory.

45. (New) The method of claim 38 wherein the surface control unit is associated with a network interface modem.

46. (New) A method for loading an executable code to a volatile memory in a downhole tool string component comprising:

sending the executable code from a surface control unit to a processor over an integrated downhole network;

writing by a central processing unit the executable code into the volatile memory, wherein the executable code is volatilely stored in the downhole tool string component, and,

requesting by the processor the executable code from the surface control unit over the integrated downhole network.

47. (New) The method of claim 46 further comprising the step of sending a command to the central processing unit as soon as the processor is in electrical communication with the surface control unit.

48. (New) The method of claim 46 further comprising the step of directing the executable code sent from surface control unit to the downhole tool string component by network interface modems associated with nodes in the integrated downhole network.

49. (New) The system of claim 46 wherein the method further comprises the step of selecting the executable code from the group consisting of software, operating systems, portions of operating systems, calibration constants, data files, and instruction sets.

50. (New) The method of claim 46 wherein the volatile memory comprises random access memory (RAM).

51. (New) The method of claim 46 wherein the surface control unit comprises non-volatile memory.

52. (New) The method of claim 46 wherein the surface control unit comprises volatile memory.

53. (New) The method of claim 46 wherein the surface control unit is associated with a network interface modem.